

CLAIMS:

1. Driving apparatus comprising at least two driving members (1, 2, 3, 4) and at least one driven member (5), wherein each of the at least two driving members is frictionally engaged to the at least one driven member (5) to move said driven member (5), wherein the friction between each driven member (5) and each driving member (1, 2, 3, 4) is such that the driven member moves when over half of the driving members (1, 2, 3, 4) being in frictional engagement with said driven member are moved simultaneously between a first and a second position, wherein the friction between each driven member (5) and each driving member (1, 2, 3, 4) is such that the driven member (5) substantially remains stationary when less than half of the driving members (1, 2, 3, 4) being in frictional engagement with said driven member are moved.
2. Driving apparatus according to claim 1, wherein the apparatus comprises at least two piezoelectric elements (8) arranged to move the at least two driving members (1, 2, 3, 4) independently.
3. Driving apparatus according to claim 1 or 2, wherein the apparatus comprises at least three driving members (1, 2, 3, 4).
4. Driving apparatus according to claim 3, wherein the apparatus comprises at least two driven members (5a, 5b, 5c).
5. Driving apparatus according to claims 3 and 4, wherein a first driving member is frictionally engaged to a first driven member only, wherein a second driving member is frictionally engaged to a second driven member only, wherein a third driving member is frictionally engaged to both the first and the second driven member.
6. Driving apparatus according to any one of the preceding claims, wherein the apparatus comprises at least four driving members (1, 2, 3, 4).

7. Driving apparatus according to any one of the preceding claims, wherein the apparatus comprises at least three driven members (5a, 5b, 5c).

8. Driving apparatus according to any one of the preceding claims, wherein each of the driving members (1, 2, 3, 4) is at least partially surrounded by part of the at least one driven member (5a, 5b, 5c).

9. Driving apparatus according to at least claims 5 and 8, wherein each driven member comprises a section of a substantially cylindrical element.

10. Driving apparatus according to any one of the preceding claims, wherein each driving member (1, 2, 3, 4) comprises an elongated member.

11. Driving apparatus according to any one of the preceding claims, wherein the driving members are substantially parallel over a certain distance (L).

12. Driving apparatus according to claims 9 and 10, wherein the elongated driving members extend adjacent to each other over a certain distance (L).

13. Use of a driving apparatus according to at least claim 1, wherein the following steps are carried out in an appropriate order to move each driven member (5):

a) over half of the driving members (1, 2) that are frictionally engaged to the driven member (5) are moved from a first to a second position at substantially the same time; and

b) the driving members (1, 2) are returned from the second to the first position in groups comprising less than half of the driving members (1, 2).

14. Use according to claim 13, wherein said steps are repeated until said driven member (5) has been moved over a desired distance.

15. Use according to claim 13 or 14, wherein step a) comprises moving driving members (1, 2) from the first to the second position.

16. Use according to any one of claims 13-15, wherein step b) comprises returning the driving members (1, 2) to the first position substantially one after another.

17. Optical system comprising a slide and the driving apparatus according to any
5 one of claims 1-13, wherein the slide is fixed to the at least one driven member.